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SANITATION IN DOMESTIC RABBITRIES

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INTRODUCTION

The term sanitation has been defined as the establishment of environmental conditions favorable to health. Since the animal must have good health to be profitable as a producer of meat or to compete as a show animal, it is at once evident that sanitation is not only desirable from an esthetic standpoint but may be a large factor in determining the financial success or failure of the rabbit breeder. Many breeders are already aware of the proper methods of safeguarding the health of their animals, but a few suggestions are often beneficial in the prevention of carelessness and the adoption of certain practices that should be avoided. Extra care and effort expended in the process of cleaning, disinfection, and maintenance of a sanitary rabbitry pay for themselves.

GENERAL PROCEDURE

Removing manure, soiled bedding, and unused feed, and cleaning hutches and equipment are primary essentials in maintaining a sanitary rabbitry. Where hutches with solid floors are used, it is necessary to remove the manure at least once every day. Though this is not so essential where an open or wire type of flooring is used, the daily removal of this waste adds materially to the appearance of the rabbit unit. Since the daily cleaning is a time-consuming task, a little thought before building as to the site and construction of the unit may mean considerable saving in time and labor. To neglect the important duty of daily cleaning, however, is to invite disaster from coccidiosis, intestinal worms, and contagious diseases. Infections of the vent, which are at times mistaken for a genital disease, and sore hocks are often the result of permitting urine-soaked bedding and manure to remain in the hutch. Since this material is extremely irritating, care must be exercised to remove it and to keep the hutch clean and dry.

The accumulation of waste and filth is always an attraction to flies and ants, which must be regarded as possible spreaders of infection. Consequently, the early removal and safe disposal of such material are important factors in the control of these pests. The safe disposal of manure and soiled waste may be a problem, particularly in rabbitries in cities or thickly settled communities. If the manure is to be spread on the

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ground as fertilizer, as soon as it is collected it should be applied some distance from the rabbitry. A pit screened against flies is also a safe place to store manure awaiting final disposal. Where it is necessary to store the manure by piling it near the rabbitry, a waterproof box should be used or a sack of quicklime should be at hand, so that it may be applied liberally each time manure is added.

CLEANING EQUIPMENT

The periodic cleaning and disinfection of water crocks, feed troughs, and nest boxes are necessary precautions in preventing disease, and it is advisable to extend the practice to the hutches as well, particularly where the animals are frequently moved from one hutch to another. When possible, it is also well to have extra water crocks and feed troughs that can be easily cleaned for use while dirty receptacles are being cleaned and disinfected. The practice of going from one hutch to another and cleaning the crocks or feeders with the same brush or cloth and immediately returning these to a hutch for further use should be avoided. This is a common method of spreading infections or contagious diseases.

To clean the water crocks properly they should be washed in hot soapy water and rinsed in clear water to which a chlorine, or other suitable disinfectant, has been added. After rinsing, the crocks should be stacked so that they will drain dry or, better still, placed where they will be exposed to the direct rays of the sun. The feed troughs should be treated in the same manner, except that when these are made of metal they should not be rinsed with a chlorine disinfectant because of the damaging effect of the chlorine on metal. Instead, after being washed thoroughly and rinsed in clear water, they can be disinfected with live steam or by boiling.

Live steam under pressure is an excellent disinfectant and can be used to good advantage if the expense is not prohibitive. Feed troughs, water crocks, and other small pieces of equipment may be effectively and economically disinfected by boiling them in water for 25 or 30 minutes.

Poisonous disinfectants or those that have a pronounced odor should not be used on water crocks or feeding equipment unless the latter are thoroughly rinsed afterward in clear water.

In cleaning and disinfecting nest boxes, hutches, or other equipment, it is better to disassemble them as far as possible and disinfect each piece separately. All dried matter should be removed by scraping or washing before further cleaning is attempted, as the presence of organic matter may impair the efficacy of the disinfectant used. After this preparation, each piece of equipment should be thoroughly scrubbed with a good disinfectant solution, such as lye or a compound solution of cresol, or some other coal-tar preparation. A careless attempt at disinfection is often more dangerous than none at all, since neglect in disinfecting thoroughly may only serve to spread the infection over a wider area. Incomplete disinfection allows disease germs to stay in cracks or crevices, where they remain unharmed and serve as a potential source of danger for an indefinite period.

CHOOSING A DISINFECTANT

In selecting a disinfectant where a large area must be covered, the relative efficacy of the product as well as the expense must be considered. The coal-tar disinfectants, which are probably the most commonly used for such purposes, can be readily obtained at any drug store under a variety of trade names, but usually as some form of stock-dip. Most of these products form a milky emulsion when added to water, and all have a pronounced odor. There is a great variation in their phenol coefficient, or disinfecting power, and this makes it necessary to refuse those products that do not have a guaranteed phenol coefficient. A satisfactory disinfecting solution can be made from one of the coal-tar preparations that has a phenol coefficient of about 5 by adding approximately a pint of the disinfectant to 2 gallons of water. If the surface to which it is to be applied has been previously cleaned, the solution can be applied with a spray; otherwise, it is better to use a brush equipped with a long handle and scrub the article to be disinfected.

Cresol solutions are frequently used and are relatively efficient as disinfectants but, like the other coal-tar preparations, they have a pronounced odor. Moreover, cresol is not readily soluble in water. The compound solution of cresol, which is a mixture of cresol and soap that can be obtained at most drug stores, is usually preferred. This mixture is readily soluble in soft water and makes a soapy suspension that adds to its efficiency, especially when used on greasy or dirty surfaces. For ordinary disinfecting purposes, a compound solution of cresol should be used in a 2 or 3 percent solution, approximately 1 pint to 4 or 5 gallons of water.

A solution of ordinary lye is a very good disinfectant, economical, and without odor. It has the disadvantage, however, of being extremely caustic and poisonous in the concentrated form, making it difficult to handle. Even the weaker solutions are injurious to paints, varnished surfaces, and enamel-ware. The concentrated product rapidly deteriorates when exposed to air; consequently, a disinfecting solution should be made from a can that has not been opened previously. A 1-pound can of lye will make 5 or 6 gallons of solution for general disinfecting purposes, and if used with caution such a solution is very useful around the rabbitry.

Quicklime has considerable disinfecting power, but because of its rapid deterioration when exposed to air, it must be used when fresh. It is without odor and is quite commonly used beneath the hutches, in the gutters, or in open drains. It may also be used as a disinfectant for discharges from sick animals and should be used by mixing a liberal quantity of the lime with the excreta, which should be allowed to stand for 2 hours or more.

The blow torch, or fire gun, which has been used extensively for disinfecting various types of rabbit equipment and which was formerly thought to be an effective means of disinfection, has been found to be of little value for such purposes. Application of the fire gun to a section of cement floor, previously cleaned by mechanical means, for 15 seconds did not destroy the ordinary bacteria present. When used on wood surfaces in the usual manner, the torch failed to destroy bacteria satisfactorily. Continued use of the fire gun may damage wire or wood equipment.

PREVENTION AND CONTROL OF INFECTIOUS DISEASES

In the prevention of disease through sanitary precautions, rabbits that are suspected of harboring a contagious disease or that have died from unknown causes must be handled with extreme care in order to prevent contamination of the entire rabbitry. Sick animals should be isolated some distance from the healthy stock, preferably in a fly-proof enclosure, until it is possible to determine the cause of the malady or until some other disposition can be made of the animal. Equipment, such as hutch, feeder, water crock, or nest box, that has been used by a sick animal or one that has died from an infectious disease should be disinfected at the earliest possible moment.

Exposed animals, that is, those that have been in contact with infected equipment or individuals, should be isolated for 10 days to 2 weeks and carefully observed for any symptoms of disease. All discharges from sick animals should be thoroughly treated with a liberal application of some good disinfectant, such as 3 percent compound solution of cresol or ordinary quicklime. Delay or neglect in the disposal of dead animals may be responsible for the establishment of a serious focus of infection or for a wide dissemination of the infection. Consequently the dead should be disposed of immediately, by burning or by deep burial.

In handling dead or diseased animals, they should be prevented from coming in contact with clothing. The feed and water remaining in a hutch after the animal has been removed should be disposed of in such a way that they will not come in contact with other rabbits. After handling diseased or dead rabbits, the hands should be thoroughly scrubbed before handling healthy stock again. Where diseased animals are being maintained in a quarantined area as an isolated group, it is better to feed and care for the healthy animals before attending to the diseased ones. The attendant should have special clothing, rubbers, and cleaning utensils for use while working with the diseased group, and these should not be taken outside the quarantined area. Upon leaving the quarantined area, the special clothing and rubbers should be removed and the hands thoroughly washed.

Cleanliness and care of feed and water must also be considered in sanitation and disease control. For instance, carts and other equipment used in disposing of manure and other waste should not be permitted to come in contact with the feed, since this practice may spread disease or parasites to healthy rabbits. Dogs and cats should also be prevented from coming in direct contact with the rabbit feed. In the event they are harboring tapeworms, the eggs from the worms may contaminate the feed and eventually become responsible for the large watery cysts so frequently encountered in domestic rabbits.

When rabbits have been on display at shows, or when new stock has been purchased, it is always advisable to isolate these animals for at least 2 weeks before they are placed with the clean stock. By following such a procedure, it is often possible to detect a communicable disease that was in the incipient stage at the time the animals were isolated and thereby prevent its introduction into the rabbitry.